

**KIBRON Delta-8**

# **HIGH THROUGHPUT SURFACE TENSIO-METER 96-SAMPLES IN TWO MINUTES**



Surface tension – precisely

  
**Kibron**





## Unique surface tension plate reader for determination of CMC

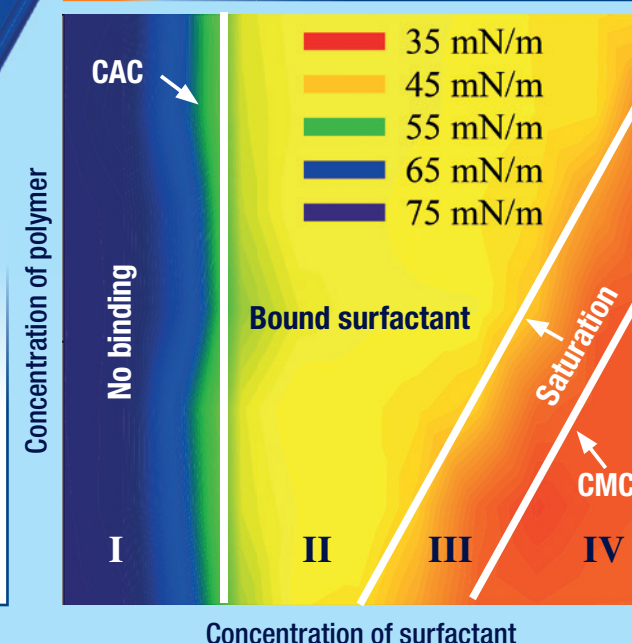
The Delta-8 is a multi-channel, fully automated surface tensiometer. It can determine the CMC of a surfactant (or surface active material) up to one hundred times faster than with conventional techniques.

Inside the Delta-8:  
Simultaneous  
cleaning of 8  
DyneProbes

- Fully automated system capable of taking 96 measurements in 2-10 minutes.
- The Delta-8 uses standard size detection plates and conventional dispensing systems. Each well (volume 50  $\mu$ l) can be charged with aliquots of solution of different concentration.
- Logging software and analytical package 'CMCeeker' for determining the of surfactants.

Screen variation in composition of surfactant polymer matrices - Results 100 times faster than conventional tensiometry at 10% of the cost.

Sample preparation made and data collected in less than 30 mins.



Computer controlled stage

Detection plate: up to 96 measurements in 2 mins



**AGFA**

[www.kibron.com/  
products/tensiometers/  
delta-8#customer-testimonials](http://www.kibron.com/products/tensiometers/delta-8#customer-testimonials)

**P&G**

"The Procter & Gamble Company provides branded products and services of superior quality and value that improve the lives of the world's consumers. In this business, investing in the right research methodology is important in driving the development of superior technology. P&G uses the Kibron Delta-8 high throughput screening device as an R&D tool for research methodology."

## TECHNICAL DATA

- Method du Noüy-Padday
- Surface tension range 10-100 mN/m
- Resolution 0.01 mN/m
- Precision 0.2 mN/m
- Temperature range 18-30°C
- Measurement volume 50  $\mu$ l/well
- Measurement time (96-well plate) 3 minutes
- Probe lifetime 100 burns
- Cleaning of Dyneprobes DyneClean electric furnace
- DyneClean lifetime 400 burns

### DynePlate - 96-well plates

- Dimensions 127.8 x 85.5 mm (standard footprint)
- Volume per well 50  $\mu$ l
- Type Disposable

### Software

- Supported OS Windows: Win XP/7/8
- Communication USB/RS-232

### Physical dimensions

- Weight: 24 kg / 52,911 lbs.
- Height: 405 mm / 15,945 in.
- Width: 770 mm / 30,315 in.
- Depth: 380 mm / 14,961 in.

### Power supply

- Input: 100 -120/200 -240 V, 47- 63 Hz.
- Output: 12 V DC, 10.8 A.
- Power max. 120 W
- CE-approved

### Safety standards

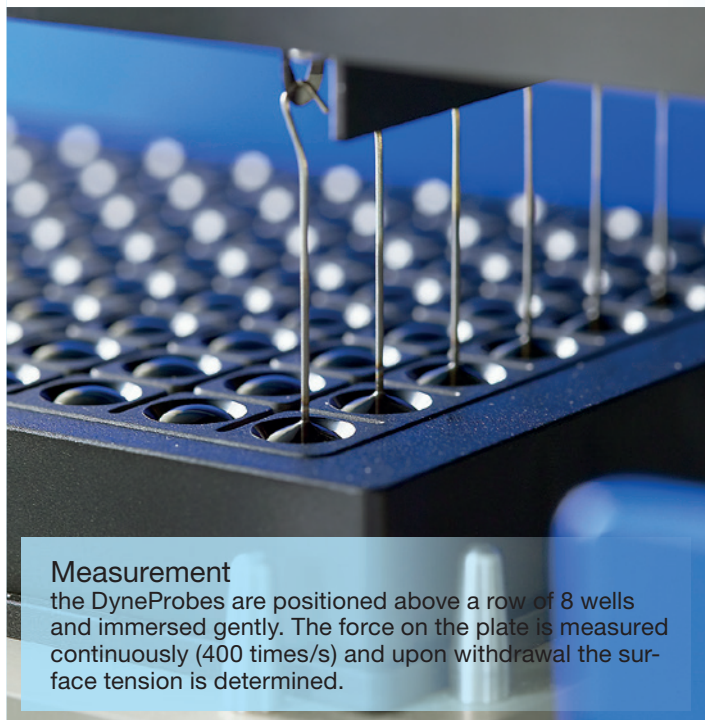
- EMC-Directives: IEC61010-1:2001, EN55011:1998, EN61003-3-2:1995, EN61000-3-3:1995, EN61000-4-2:1995, EN61000-4-3:1996, EN61000-4-4:1996, EN1000-4-5:1996, EN61000-4-6:1996, N61000-4-11:1994

# KIBRON DELTA-8

## PERFORMANCE BEYOND CONVENTION

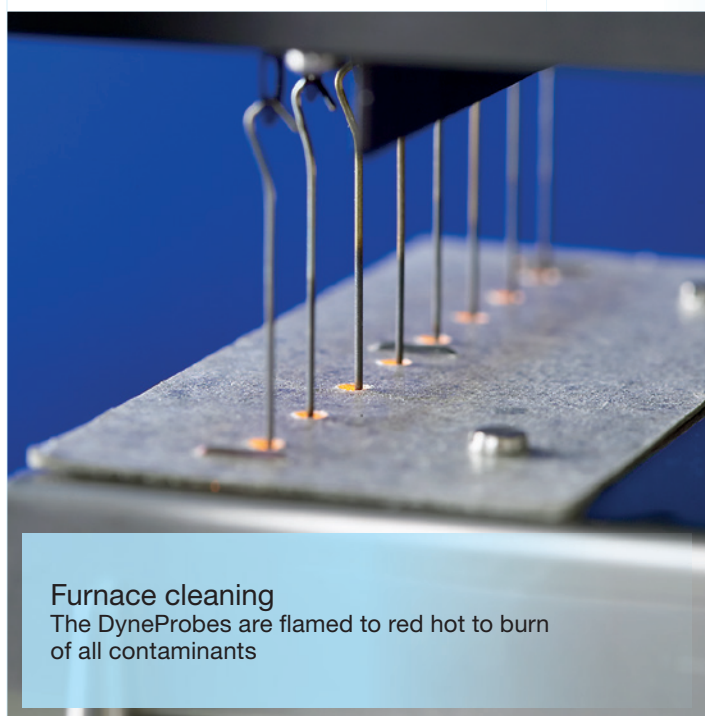


## DELTA-8 COMES WITH THE FOLLOWING STANDARD ACCESSORIES



### Measurement

the DyneProbes are positioned above a row of 8 wells and immersed gently. The force on the plate is measured continuously (400 times/s) and upon withdrawal the surface tension is determined.



### Furnace cleaning

The DyneProbes are flamed to red hot to burn off all contaminants

## ACCESSORIES

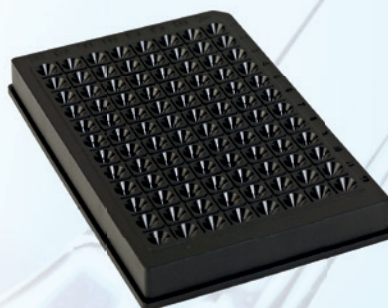
### DyneClean

- Cleaning furnace for automatic cleaning of probes in Delta-8
- Heats up to 1000°C
- Clean eight probes simultaneously
- Avoid surfactant contamination
- For use up to 400 times



### DynePlates

- Standard size 96-well plate made out of chemically resistant polypropylene
- For use in the Kibron Delta-8
- 50 microliter sample volume
- Disposable and recyclable
- Contamination free
- Recyclable



### DyneProbe

- Inert metal alloy Ø 0.51mm
- Allows for small sample volumes
- Easy to clean, economical to use
- Works with cationic surface active agents too



## REFERENCES

*Royal Melbourne Institute of Technology, Goethe-University Frankfurt, London School of Pharmacy, Institute of Bioengineering and Nanotechnology Singapore, University of Liverpool*



Kibron Inc. manufactures state-of-the-art tensiometers, langmuir-blodgett troughs and gravimetric balances as well as customer specified surface chemistry equipment and screening technology to overcome today's challenges in chemical industry. Since its founding, 1994, Kibron has focused on innovation, user benefits and dependable service.

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